United States Department of Agriculture

Grain Transportation Report

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April 15, 2021

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WEEKLY HIGHLIGHTS

White House Releases State-by-State Fact Sheet Highlighting Infrastructure Needs

The White House released State-by-State fact sheets highlighting the urgent need for infrastructure investments across the country. For each of the 50 States, District of Columbia, and Puerto Rico, an individual fact sheet highlights the number of bridges and miles of road in poor condition. Each individual fact sheet also details the investment required for that particular region to improve infrastructure resiliency and adapt to extreme weather events, among other infrastructure needs. All State-by-State fact sheets can be found here.

STB Adopts Final Rule on Demurrage Billing Requirements

The Surface Transportation Board (STB) adopted a final rule effective October 6, 2021, requiring Class I carriers to include certain minimum information on demurrage invoices and provide machine-readable access to this information. Railroads charge demurrage fees when shippers hold cars beyond a specified time. However, shippers have expressed concerns that railroad invoicing practices can be difficult to verify and lack basic information about the shipments covered. The rule requires the demurrage invoice to include (among other details) the date and time the railroad received the cars, the date and time of the original estimated arrival, the actual placement and release of each car, and where applicable, the number of demurrage credits and debits attributable to each car.

FMC Announces Rulemaking for Common Carrier Tariffs

The Federal Maritime Commission (FMC) recently issued an advance notice of proposed rulemaking seeking public comment on the reasonableness of fees charged to access an ocean carrier's public tariff. Carrier tariffs contain common carrier rates, charges, classifications, rules, and practices, which shippers can default to once contract terms are fulfilled. FMC seeks to understand why carriers' fees and minimum requirements to access the online tariff systems vary and the impact of such variance. Further, the agency would like to know whether existing fees or requirements are unreasonable. FMC seeks additional information from industry stakeholders on why certain non-vessel-operating common carriers apply "pass-through charges" inconsistently under common carrier tariffs. The deadline for submitting comments is June 7, 2021.

Scheduled Lock Maintenance on Panama Canal Reduces Transit Capacity

On April 27, 2021, the Agua Clara NeoPanamax Locks on the Panama Canal will be closed for 6 hours, for maintenance and repair work. During this time, the estimated transit capacity of the NeoPanamax Locks will be 8-9 vessels per day, rather than the normal capacity of 9-11 vessels. Capacity (whether normal or constricted) depends on the types of vessels transiting, transit restrictions, and other factors. At this time, no major delays are anticipated.

Snapshots by Sector

Export Sales

For the week ending April 1, **unshipped balances** of wheat, corn, and soybeans totaled 41.0 million metric tons (mmt). This was 5 percent lower than last week, but still represented a significant increase in outstanding sales from the same time last year. Net **corn export sales** were 0.757 mmt, down 5 percent from the past week. Net **soybean export sales** were −0.092 mmt, down significantly from the previous week. Net **wheat export sales** were 0.082 mmt, down 67 percent from the previous week.

Rail

U.S. Class I railroads originated 25,679 **grain carloads** during the week ending April 3. This was a 5-percent increase from the previous week, 23 percent more than last year, and 16 percent more than the 3-year average.

Average April shuttle **secondary railcar** bids/offers (per car) were $505 above tariff for the week ending April 8. This was $301 more than last week and $505 more than this week last year. There were no non-shuttle bids/offers this week.

Barge

For the week ending April 10, **barge grain movements** totaled 902,995 tons. This was 16 percent higher than the previous week and 114 percent higher than the same period last year.

For the week ending April 10, 605 grain barges **moved down river**—108 barges more than the previous week. There were 644 grain barges **unloaded in New Orleans**, 8 percent lower than the previous week.

Ocean

For the week ending April 8, 36 **oceangoing grain vessels** were loaded in the Gulf—16 percent more than the same period last year. Within the next 10 days (starting April 9, 2021), 45 vessels were expected to be loaded—12 percent less than the same period last year.

As of April 8, the rate for shipping a metric ton of grain from the U.S. Gulf to Japan was $60.00. This was 1 percent less than the previous week. The rate from the Pacific Northwest to Japan was $35.50 per metric ton, 1 percent less than the previous week.

Fuel

For the week ending April 12, the U.S. average **diesel fuel price** decreased 1.5 cents from the previous week to $3.129 per gallon, 62.2 cents above the same week last year.

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Feature Article/Calendar

Renewed Global Optimism Drove Up Ocean Freight Rates in the First Quarter

Defying typical seasonal patterns, first-quarter 2021 ocean freight rates for shipping dry bulk commodities, including grain, actually increased from the previous quarter. Generally, first-quarter ocean freight rates tend to fall with dipping trade activity due to various holidays, such as New Year and Chinese Lunar New Year holidays. However, this year, from January through March, ocean freight rates rose. The rise in rates reflected the new global optimism sparked by the success of various COVID-19 vaccine trials and the reopening of major economies.

Rises in First-Quarter Ocean Rates

From the U.S. Gulf to Japan, first-quarter 2021 ocean rates averaged $52.19 per metric ton (mt) of grain—24 percent more than fourth quarter 2020 (quarter to quarter), 20 percent more than first quarter 2020 (year to year), and 27 percent more than the 4-year average (see table and figure). From the Pacific Northwest (PNW) to Japan, ocean rates averaged $29.85 per mt—28 percent more quarter to quarter, 29 percent more than year to year, and 34 percent more than the 4-year average.

From the U.S. Gulf to Europe, the average rate was $19.75 per mt, 4 percent more quarter to quarter, 33 percent more year to year, and 25 percent more than the 4-year average. At $22.33, the difference or "spread" between the U.S. Gulf- and PNW- to Japan rates was up from all benchmarks: quarter to quarter, year to year, and the 4-year average. The rest of the article examines market dynamics and what contributed to the rates increase.

Ocean freight rates for grain routes first quarter 2021

Route	Jan.	Feb.	Mar.	1st quarter 2021	Change from 4th qtr. '20	Change from 1st qtr. '20	Change from 4-yr. avg.
	--$/mt--			--$/mt--	Percent		
U.S. Gulf to Japan	45.50	51.81	59.25	52.19	24	20	27
PNW to Japan	26.06	29.56	33.94	29.85	28	29	34
Spread*	19.44	22.25	25.31	22.33	19	10	18
U.S. Gulf to Europe	19.25	18.75	21.25	19.75	4	33	25

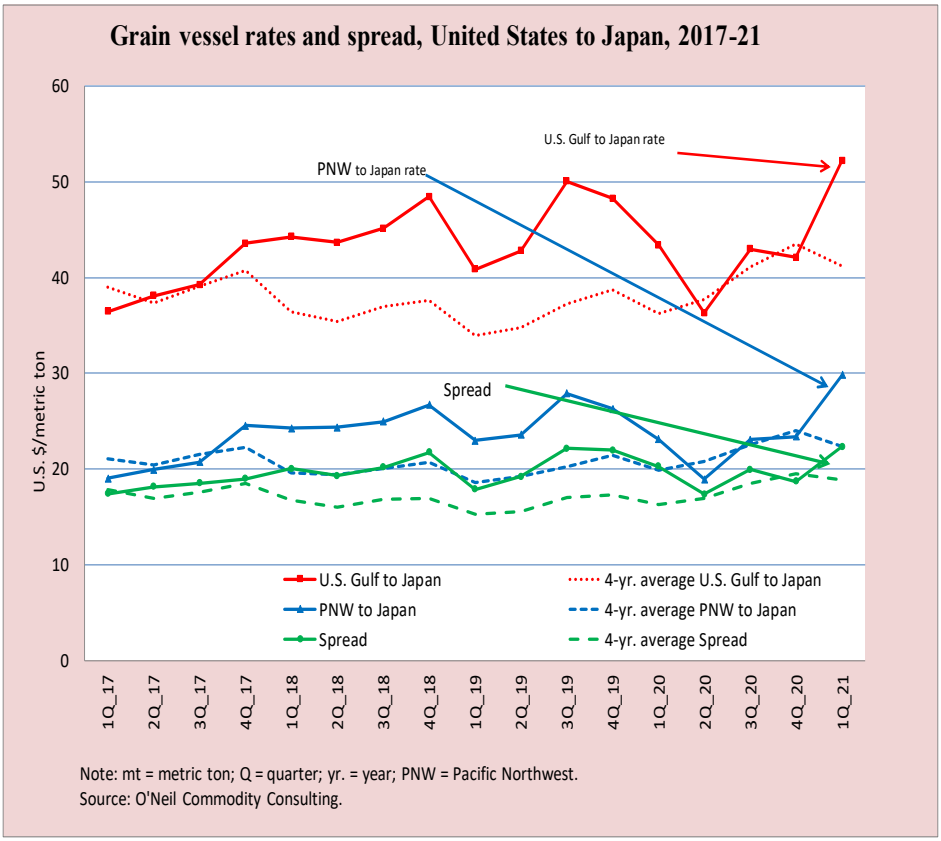
Note: qtr. = quarter; avg = average; mt = metric ton; yr = year; PNW = Pacific Northwest.
*Spread is the difference between ocean freight rates for shipping grain from the U.S. Gulf to Japan and PNW to Japan.
Source: O'Neil Commodity Consulting.

Factors Behind the Surge in Rates

Driven by direct and indirect factors, ocean freight and charter rates rose continuously from January through March. As major economies around the world started to reopen after their pandemic lockdowns, some instituted ultra-loose monetary policies. China's stimulus package—aimed primarily at infrastructure development—drove iron-ore demand. Chinese soybean imports also rose. According to Drewry Maritime Research (Drewry), grain trade between the United States and China increased from 16.6 million tons to 28.0 million tons, year to year.

According to USDA's Agricultural Marketing Service data, from the week ending January 7 to the week ending March 25, an average of 41 oceangoing grain vessels were loaded in the U.S. Gulf, compared to 30 vessels during the same period last year. In addition, the weakening of the U.S. dollar also boosted commodity trade. As proof of high first-quarter demand for Panamax vessels, Drewry reported Panamax vessels were chartered in February at an average rate (minus commission) of $16,500 per day, compared to $10,800 per day a year earlier. While hiring rates have been at a multi-year high across all vessel segments, the Panamax rate has been the highest gainer—year to date—among all vessel segments.

The demand for dry bulk vessels continued to strengthen in March as construction and manufacturing activities heated up after the Chinese New Year holidays. Higher trade in grain and minor bulk commodities, such as soybeans and fertilizers, also strengthened the demand for other vessel segments. More soybean and corn cultivation in Brazil increased the country's demand for imported fertilizers.



Note: mt = metric ton; Q = quarter; yr. = year; PNW = Pacific Northwest.
Source: O'Neil Commodity Consulting.

Current Market Analysis and Outlook

Upward pressures on ocean rates. As of April 8, 2021, the ocean freight rate from the U.S. Gulf to Japan was $61.00 per mt of grain, 41 percent higher than the first available rate in the beginning of the year, and 57 percent higher year to year. The rate from PNW to Japan was $35.50 per mt, 45 percent higher than the beginning of the year and 80 percent higher year to year.

Ocean freight rates have continued to increase in April. However, it remains to be seen whether the recent bullish sentiment in the dry bulk market and higher ocean rates can be sustained. According to Drewry, along with the dwindling supply of dry bulk vessels over the last decade, an ongoing trade dispute between Australia and China has put upward pressure on ocean freight rates. Around the middle of March, as many as 11 Capesize and 37 Panamax coal-carrying vessels were stranded at Chinese ports, taking those vessels out of circulation. While India and Japan now import coal from Australia, China is sourcing its coal from more distant countries like South Africa. This scenario led to increasing ton-mile demand, which put upward pressure on ocean rates.

Downward pressures on ocean rates. Countering the upward pressures, other factors may put downward pressure on rates in the near to long term. Encouraged by rising charter and ocean freight rates, owners may gradually return idle vessels to the market, thereby increasing vessel supply and lowering rates. Vessel availability will also increase as congestion eases in the Far East and United States. The most recent wave of COVID-19 and renewed lockdowns in some countries, especially Europe, may likewise affect bulk trade and lower demand for vessels.

Rising oil prices could suppress energy production and indirectly increase the prices of raw materials and other non-oil fuel sources, such as coal, by raising extraction and mining costs. Lower energy production—along with lower production of coal and other raw materials—could lead to reduced demand for bulk carriers, and lower rates. Higher oil prices (bunker fuel prices) raise operation costs for longhaul shipments, which may dampen import demand, especially in China and India, and put further downward pressure on rates.

Finally, despite the dry bulk market's recent upswing, there is no consensus on how long it will last. While some analysts predict 3-5 months, some predict 3-5 quarters, and still others predict until 2023 (Drewry).
surajudeen.olowolayemo@usda.gov

Grain Transportation Indicators

Table 1

Grain transport cost indicators[1]

	Truck	Rail		Barge	Ocean	
For the week ending		Non-Shuttle	Shuttle		Gulf	Pacific
04/14/21	210	295	236	188	273	252
04/07/21	211	295	227	199	275	255

[1]Indicator: Base year 2000 = 100. Weekly updates include truck = diesel ($/gallon); rail = near-month secondary rail market bid and monthly tariff rate with fuel surcharge ($/car); barge = Illinois River barge rate (index = percent of tariff rate); ocean = routes to Japan ($/metric ton); n/a = not available.
Source: USDA, Agricultural Marketing Service.

Table 2

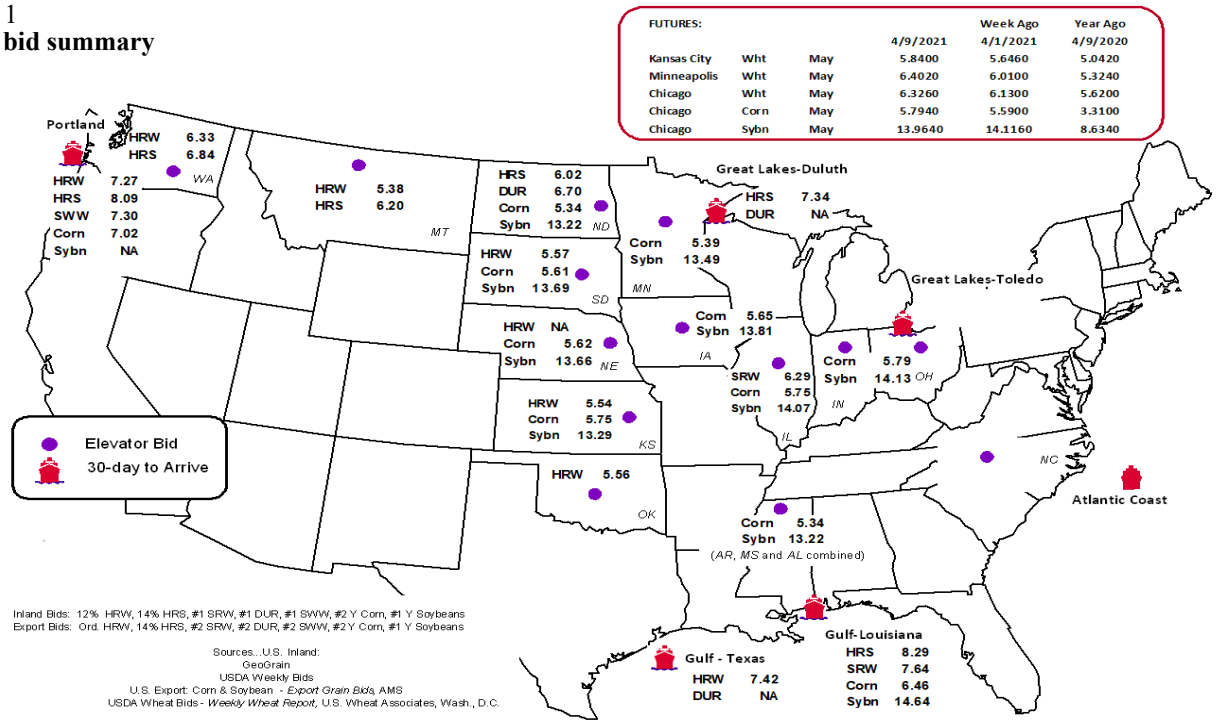
Market Update: U.S. origins to export position price spreads ($/bushel)

Commodity	Origin–destination	4/9/2021	4/1/2021
Corn	IL–Gulf	-0.71	-0.74
Corn	NE–Gulf	-0.84	-0.85
Soybean	IA–Gulf	-0.83	-0.90
HRW	KS–Gulf	-1.88	-1.87
HRS	ND–Portland	-2.07	-2.04

Note: nq = no quote; n/a = not available; HRW = hard red winter wheat; HRS = hard red spring wheat.
Source: USDA, Agricultural Marketing Service.

The **grain bid summary** illustrates the market relationships for commodities. Positive and negative adjustments in differential between terminal and futures markets, and the relationship to inland market points, are indicators of changes in fundamental market supply and demand. The map may be used to monitor market and time differentials.

Figure 1
Grain bid summary



Rail Transportation

Table 3

Rail deliveries to port (carloads)[1]

For the week ending	Mississippi Gulf	Texas Gulf	Pacific Northwest	Atlantic & East Gulf	Total	Week ending	Cross-border Mexico[3]
4/07/2021[p]	2,008	1,447	6,712	460	10,627	4/3/2021	2,528
3/31/2021[r]	1,689	1,809	5,997	224	9,719	3/27/2021	3,600
2021 YTD[r]	25,493	24,506	94,656	8,683	153,338	2021 YTD	34,523
2020 YTD[r]	4,468	9,147	59,483	2,905	76,003	2020 YTD	32,280
2021 YTD as % of 2020 YTD	571	268	159	299	202	% change YTD	107
Last 4 weeks as % of 2020[2]	611	202	136	171	168	Last 4wks. % 2020	113
Last 4 weeks as % of 4-year avg.[2]	260	107	106	97	118	Last 4wks. % 4 yr.	134
Total 2020	45,294	64,116	299,882	24,458	433,750	Total 2020	126,407
Total 2019	40,974	51,167	251,181	16,192	359,514	Total 2019	127,622

[1]Data is incomplete as it is voluntarily provided.

[2] Compared with same 4-weeks in 2020 and prior 4-year average.

[3] Cross-border weekly data is approximately 15 percent below the Association of American Railroads' reported weekly carloads received by Mexican railroads. to reflect switching between Kansas City Southern de Mexico (KCSM) and Grupo Mexico.

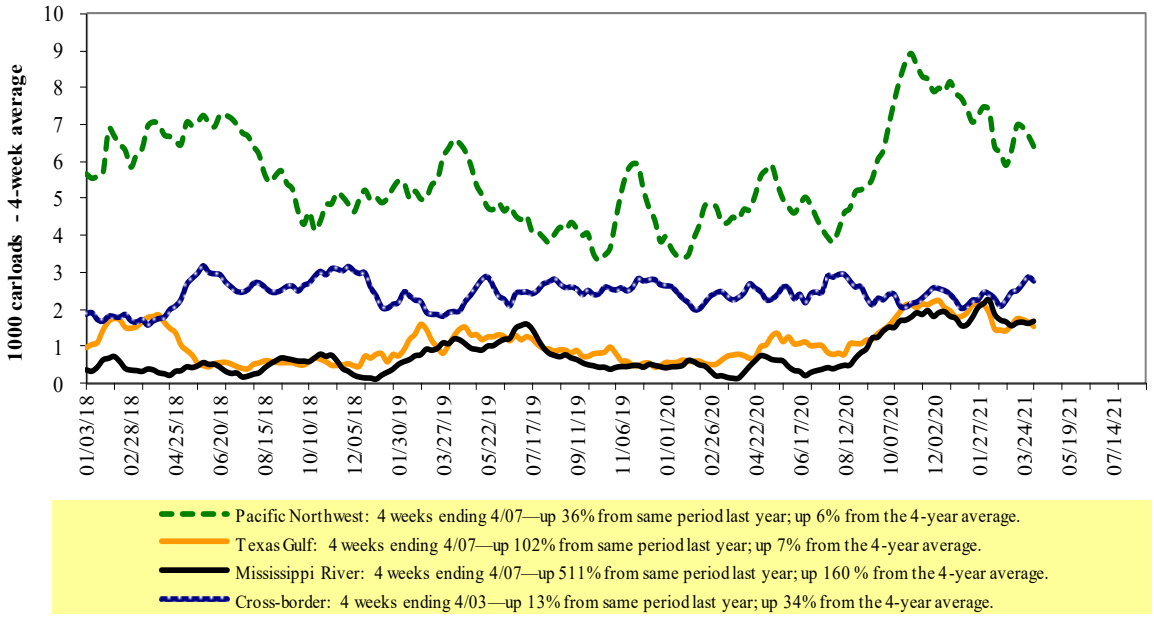
YTD = year-to-date; p = preliminary data; r = revised data; n/a = not available; wks. = weeks; avg. = average.

Source: USDA, Agricultural Marketing Service.

Railroads originate approximately 24 percent of U.S. grain shipments. Trends in these loadings are indicative of market conditions and expectations.

Figure 2

Rail deliveries to port



Source: USDA, Agricultural Marketing Service.

Table 4

Class I rail carrier grain car bulletin (grain carloads originated)

For the week ending:	East		West			U.S. total	Canada	
4/3/2021	CSXT	NS	BNSF	KCS	UP		CN	CP
This week	2,101	2,297	13,886	929	6,466	25,679	5,486	6,444
This week last year	1,828	2,703	10,409	958	4,904	20,802	5,438	4,854
2021 YTD	27,015	33,637	170,525	13,402	84,558	329,137	63,769	67,974
2020 YTD	24,161	32,264	146,736	15,204	63,433	281,798	49,578	53,572
2021 YTD as % of 2020 YTD	112	104	116	88	133	117	129	127
Last 4 weeks as % of 2020*	118	95	122	103	137	121	118	145
Last 4 weeks as % of 3-yr. avg.**	102	94	115	108	135	116	120	136
Total 2020	91,659	130,886	613,630	57,782	296,701	1,190,658	239,030	261,778

*The past 4 weeks of this year as a percent of the same 4 weeks last year.

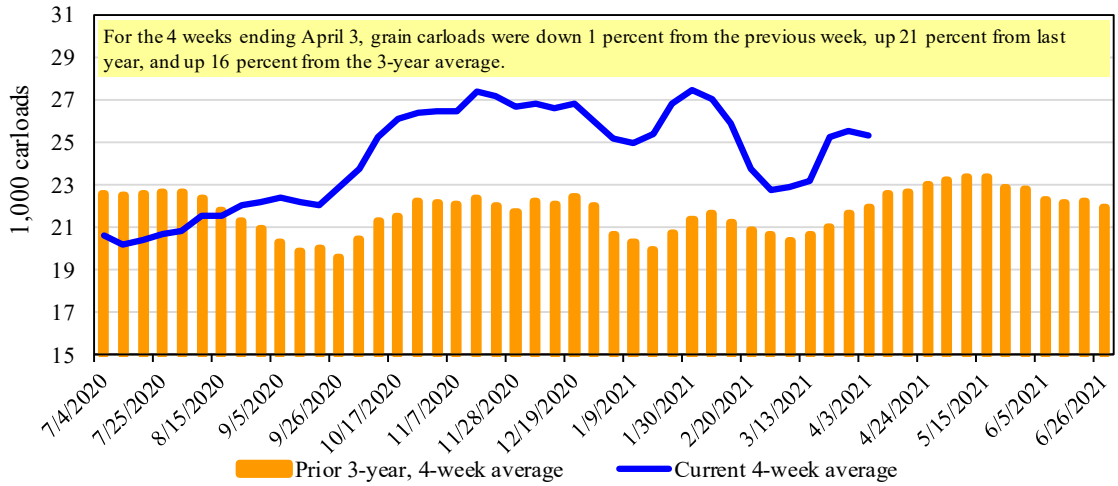
**The past 4 weeks as a percent of the same period from the prior 3-year average. YTD = year-to-date; avg. = average; yr. = year.

Note: NS = Norfolk Southern; KCS = Kansas City Southern; UP = Union Pacific; CN = Canadian National; CP = Canadian Pacific.

Source: Association of American Railroads.

Figure 3

Total weekly U.S. Class I railroad grain carloads



Source: Association of American Railroads.

Table 5

Railcar auction offerings[1] ($/car)[2]

For the week ending:		Delivery period							
4/8/2021		Apr-21	Apr-20	May-21	May-20	Jun-21	Jun-20	Jul-21	Jul-20
BNSF[3]	COT grain units	no offer	0	no bids	no bids	0	no bids	no bids	no bids
	COT grain single-car	0	0	0	0	0	0	0	0
UP[4]	GCAS/Region 1	no offer	no offer	no offer	no offer	no offer	no offer	n/a	n/a
	GCAS/Region 2	no offer	no bid	no offer	no bid	no offer	no bid	n/a	n/a

[1]Auction offerings are for single-car and unit train shipments only.

[2]Average premium/discount to tariff, last auction. n/a = not available.

[3]BNSF - COT = BNSF Railway Certificate of Transportation; north grain and south grain bids were combined effective the week ending 6/24/06.

[4]UP - GCAS = Union Pacific Railroad Grain Car Allocation System.

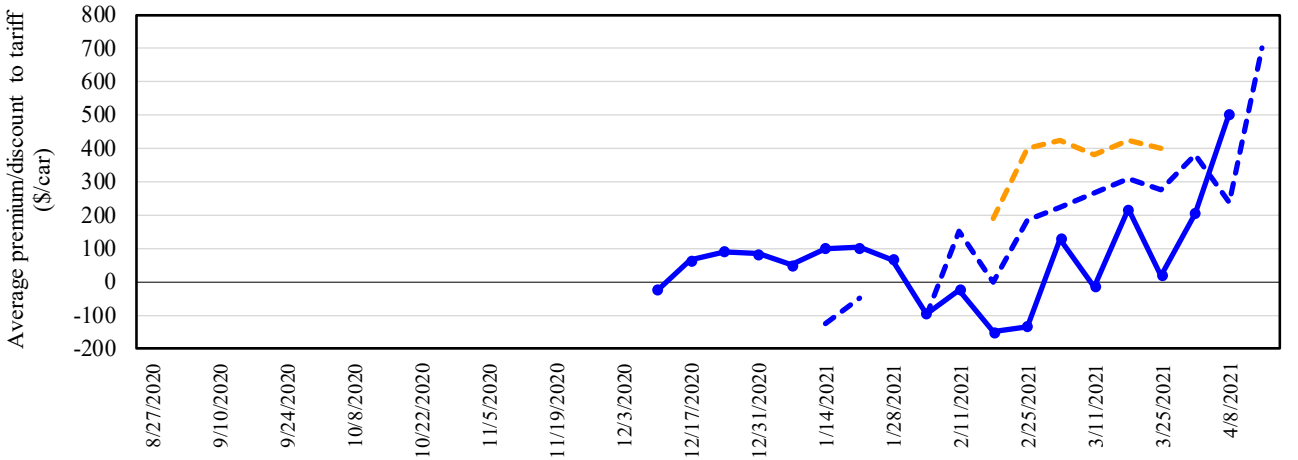
Region 1 includes: AR, IL, LA, MO, NM, OK, TX, WI, and Duluth, MN.

Region 2 includes: CO, IA, KS, MN, NE, WY, and Kansas City and St. Joseph, MO.

Source: USDA, Agricultural Marketing Service.

The **secondary rail market** information reflects trade values for service that was originally purchased from the railroad carrier as some form of guaranteed freight. The **auction and secondary rail** values are indicators of rail service quality and demand/ supply.

Figure 4
Bids/offers for railcars to be delivered in April 2021, secondary market

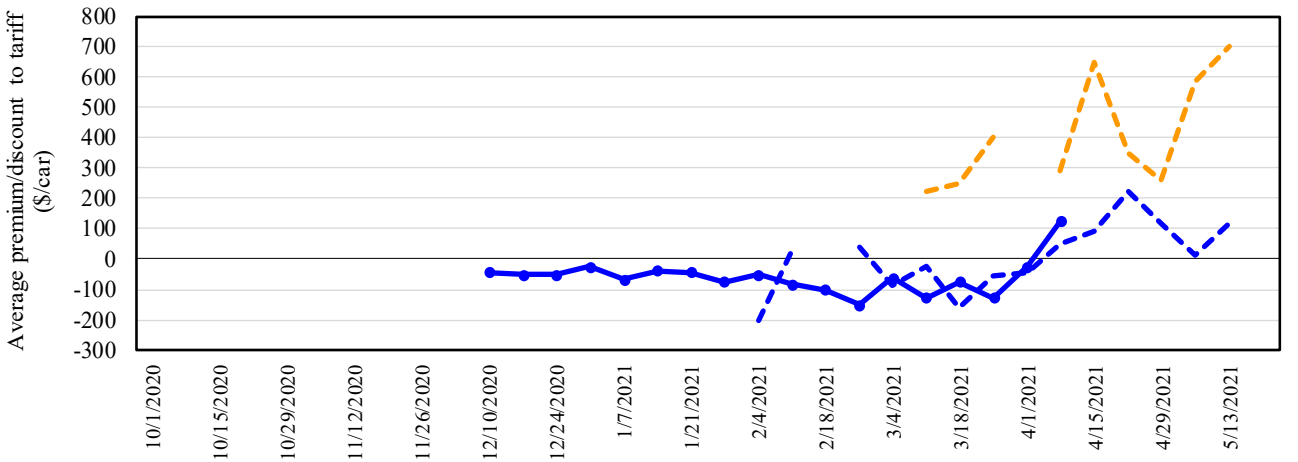


4/8/2021	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	$459	$550

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers rose $301 this week and are at the peak.

Note: Non-shuttle bids include unit-train and single-car bids. n/a = not available; avg. = average; yr. = year; BNSF = BNSF Railway; UP = Union Pacific Railroad.
Source: USDA, Agricultural Marketing Service.

Figure 5
Bids/offers for railcars to be delivered in May 2021, secondary market



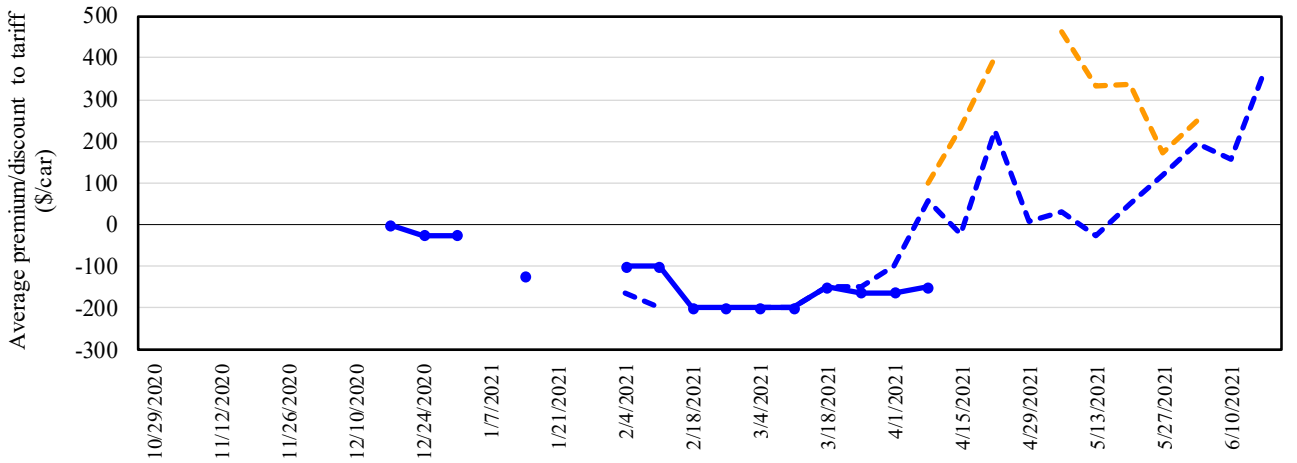
4/8/2021	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	$63	$188

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers rose $150 this week and are at the peak.

Note: Non-shuttle bids include unit-train and single-car bids. n/a = not available; avg. = average; yr. = year; BNSF = BNSF Railway; UP = Union Pacific Railroad.
Source: USDA, Agricultural Marketing Service.

Figure 6

Bids/offers for railcars to be delivered in June 2021, secondary market



4/8/2021	BNSF	UP
Non-shuttle	n/a	n/a
Shuttle	-$150	n/a

There were no non-shuttle bids/offers this week.
Average shuttle bids/offers rose $13 this week and are $150 below the peak.

Note: Non-shuttle bids include unit-train and single-car bids. n/a = not available; avg. = average; yr. = year; BNSF = BNSF Railway; UP = Union Pacific Railroad.
Source: USDA, Agricultural Marketing Service.

Table 6

Weekly secondary railcar market ($/car)[1]

	For the week ending: 4/8/2021	Delivery period					
		Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21
Non-shuttle	**BNSF-GF**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	n/a	n/a	n/a	n/a	n/a	n/a
	Change from same week 2020	n/a	n/a	n/a	n/a	n/a	n/a
	UP-Pool	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
	Change from last week	n/a	n/a	n/a	n/a	n/a	n/a
	Change from same week 2020	n/a	n/a	n/a	n/a	n/a	n/a
Shuttle	**BNSF-GF**	**459**	**63**	**(150)**	**(150)**	**(150)**	**(125)**
	Change from last week	321	88	13	25	0	25
	Change from same week 2020	509	113	n/a	n/a	n/a	n/a
	UP-Pool	**550**	**188**	**n/a**	**(100)**	**(150)**	**(150)**
	Change from last week	279	213	n/a	50	50	0
	Change from same week 2020	500	138	n/a	100	n/a	n/a

[1]Average premium/discount to tariff, $/car-last week.

Note: Bids listed are market indicators only and are not guaranteed prices. n/a = not available; GF = guaranteed freight; Pool = guaranteed pool; BNSF = BNSF Railway; UP = Union Pacific Railroad.

Data from James B. Joiner Co., Tradewest Brokerage Co.

Source: USDA, Agricultural Marketing Service.

The **tariff rail rate** is the base price of freight rail service. Together with **fuel surcharges** and any **auction and secondary rail** values, the tariff rail rate constitutes the full cost of shipping by rail. Typically, auction and secondary rail values are a small fraction of the full cost of shipping by rail relative to the tariff rate. However, during times of high rail demand or short supply, high auction and secondary rail values can exceed the cost of the tariff rate plus fuel surcharge.

Table 7

Tariff rail rates for unit and shuttle train shipments[1]

April 2021	Origin region[3]	Destination region[3]	Tariff rate/car	Fuel surcharge per car	Tariff plus surcharge per: metric ton	Tariff plus surcharge per: bushel[2]	Percent change Y/Y[4]
Unit train							
Wheat	Wichita, KS	St. Louis, MO	$3,983	$76	$40.31	$1.10	0
	Grand Forks, ND	Duluth-Superior, MN	$4,208	$0	$41.79	$1.14	-3
	Wichita, KS	Los Angeles, CA	$7,115	$0	$70.66	$1.92	-2
	Wichita, KS	New Orleans, LA	$4,525	$134	$46.26	$1.26	0
	Sioux Falls, SD	Galveston-Houston, TX	$6,851	$0	$68.03	$1.85	-2
	Colby, KS	Galveston-Houston, TX	$4,801	$146	$49.13	$1.34	0
	Amarillo, TX	Los Angeles, CA	$5,121	$204	$52.88	$1.44	-1
Corn	Champaign-Urbana, IL	New Orleans, LA	$3,900	$151	$40.23	$1.02	0
	Toledo, OH	Raleigh, NC	$7,833	$0	$77.79	$1.98	15
	Des Moines, IA	Davenport, IA	$2,455	$32	$24.70	$0.63	1
	Indianapolis, IN	Atlanta, GA	$5,979	$0	$59.37	$1.51	3
	Indianapolis, IN	Knoxville, TN	$5,040	$0	$50.05	$1.27	3
	Des Moines, IA	Little Rock, AR	$3,900	$94	$39.66	$1.01	2
	Des Moines, IA	Los Angeles, CA	$5,780	$273	$60.11	$1.53	1
Soybeans	Minneapolis, MN	New Orleans, LA	$5,246	$148	$53.56	$1.46	42
	Toledo, OH	Huntsville, AL	$6,595	$0	$65.49	$1.78	17
	Indianapolis, IN	Raleigh, NC	$7,125	$0	$70.75	$1.93	3
	Indianapolis, IN	Huntsville, AL	$5,247	$0	$52.11	$1.42	3
	Champaign-Urbana, IL	New Orleans, LA	$4,645	$151	$47.63	$1.30	0
Shuttle train							
Wheat	Great Falls, MT	Portland, OR	$4,018	$0	$39.90	$1.09	-3
	Wichita, KS	Galveston-Houston, TX	$4,236	$0	$42.07	$1.14	-3
	Chicago, IL	Albany, NY	$6,376	$0	$63.32	$1.72	-10
	Grand Forks, ND	Portland, OR	$5,676	$0	$56.37	$1.53	-2
	Grand Forks, ND	Galveston-Houston, TX	$5,996	$0	$59.54	$1.62	-2
	Colby, KS	Portland, OR	$6,012	$240	$62.08	$1.69	-1
Corn	Minneapolis, MN	Portland, OR	$5,180	$0	$51.44	$1.31	0
	Sioux Falls, SD	Tacoma, WA	$5,140	$0	$51.04	$1.30	0
	Champaign-Urbana, IL	New Orleans, LA	$3,820	$151	$39.43	$1.00	-1
	Lincoln, NE	Galveston-Houston, TX	$3,880	$0	$38.53	$0.98	0
	Des Moines, IA	Amarillo, TX	$4,320	$118	$44.07	$1.12	2
	Minneapolis, MN	Tacoma, WA	$5,180	$0	$51.44	$1.31	0
	Council Bluffs, IA	Stockton, CA	$5,100	$0	$50.65	$1.29	2
Soybeans	Sioux Falls, SD	Tacoma, WA	$5,850	$0	$58.09	$1.58	0
	Minneapolis, MN	Portland, OR	$5,900	$0	$58.59	$1.59	0
	Fargo, ND	Tacoma, WA	$5,750	$0	$57.10	$1.55	0
	Council Bluffs, IA	New Orleans, LA	$4,875	$174	$50.14	$1.36	0
	Toledo, OH	Huntsville, AL	$4,945	$0	$49.11	$1.34	3
	Grand Island, NE	Portland, OR	$5,260	$246	$54.67	$1.49	-1

[1]A unit train refers to shipments of at least 25 cars. Shuttle train rates are generally available for qualified shipments of 75-120 cars that meet railroad efficiency requirements.

[2]Approximate load per car = 111 short tons (100.7 metric tons): corn 56 pounds per bushel (lbs/bu), wheat and soybeans 60 lbs/bu.

[3]Regional economic areas are defined by the Bureau of Economic Analysis (BEA).

[4]Percentage change year over year (Y/Y) calculated using tariff rate plus fuel surcharge.

Source: BNSF Railway, Canadian National Railway, CSX Transportation, and Union Pacific Railroad.

Table 8

Tariff rail rates for U.S. bulk grain shipments to Mexico

Date: April 2021							
Commodity	Origin state	Destination region	Tariff rate per car[1]	Fuel surcharge per car[2]	Tariff rate plus fuel surcharge per: metric ton[3]	bushel[3]	Percent change[4] Y/Y
Wheat	MT	Chihuahua, CI	$7,384	$0	$75.45	$2.05	-2
	OK	Cuautitlan, EM	$6,713	$105	$69.65	$1.89	-1
	KS	Guadalajara, JA	$7,471	$644	$82.91	$2.25	1
	TX	Salinas Victoria, NL	$4,347	$64	$45.07	$1.23	0
Corn	IA	Guadalajara, JA	$8,902	$531	$96.38	$2.45	1
	SD	Celaya, GJ	$8,140	$0	$83.17	$2.11	0
	NE	Queretaro, QA	$8,300	$218	$87.04	$2.21	0
	SD	Salinas Victoria, NL	$6,905	$0	$70.55	$1.79	0
	MO	Tlalnepantla, EM	$7,665	$213	$80.49	$2.04	0
	SD	Torreon, CU	$7,690	$0	$78.57	$1.99	0
Soybeans	MO	Bojay (Tula), HG	$8,547	$500	$92.43	$2.51	1
	NE	Guadalajara, JA	$9,157	$517	$98.84	$2.69	1
	IA	El Castillo, JA	$9,410	$0	$96.15	$2.61	-1
	KS	Torreon, CU	$8,014	$349	$85.45	$2.32	1
Sorghum	NE	Celaya, GJ	$7,772	$463	$84.15	$2.14	1
	KS	Queretaro, QA	$8,108	$131	$84.17	$2.14	0
	NE	Salinas Victoria, NL	$6,713	$105	$69.66	$1.77	0
	NE	Torreon, CU	$7,092	$314	$75.67	$1.92	1

[1]Rates are based upon published tariff rates for high-capacity shuttle trains. Shuttle trains are available for qualified shipments of 75-110 cars that meet railroad efficiency requirements.

[2]Fuel surcharge adjusted to reflect the change in Ferrocarril Mexicano, S.A. de C.V railroad fuel surcharge policy as of 10/01/2009.

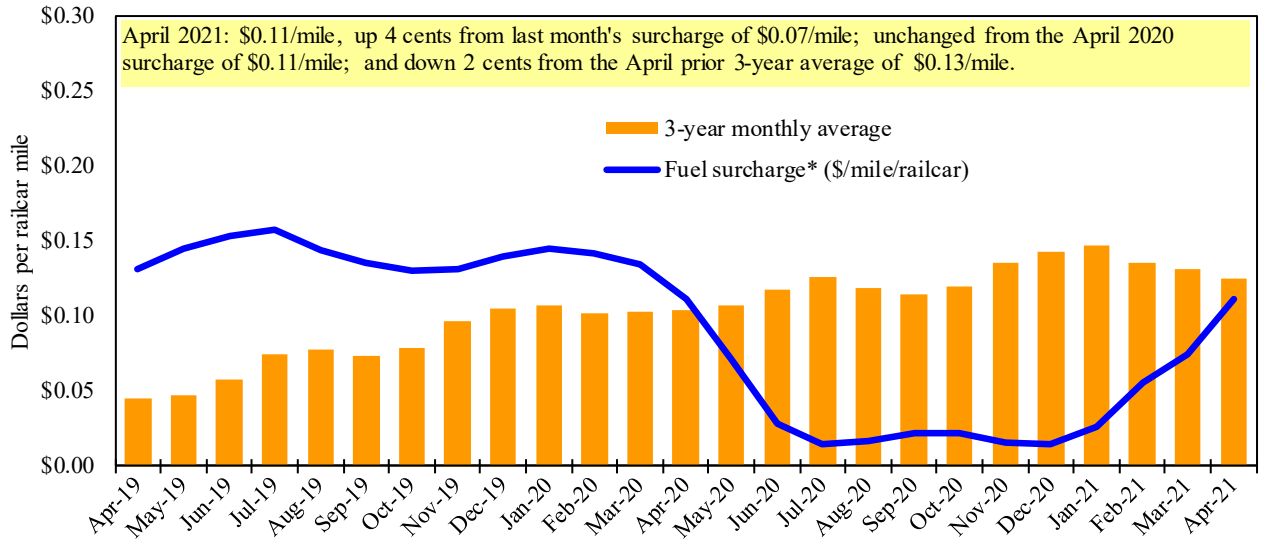
[3]Approximate load per car = 97.87 metric tons: Corn & Sorghum 56 lbs/bu, Wheat & Soybeans 60 lbs/bu.

[4]Percentage change calculated using tariff rate plus fuel surchage; Y/Y = year over year.

Sources: BNSF Railway, Union Pacific Railroad, Kansas City Southern.

Figure 7

Railroad fuel surcharges, North American weighted average[1]



[1] Weighted by each Class I railroad's proportion of grain traffic for the prior year.

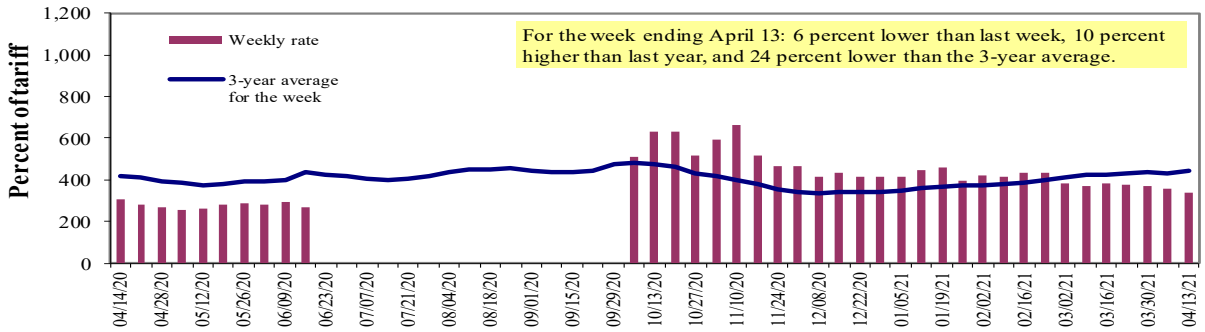
* Beginning January 2009, the Canadian Pacific fuel surcharge is computed by a monthly average of the bi-weekly fuel surcharge.

**CSX strike price changed from $2.00/gal. to $3.75/gal. starting January 1, 2015.

Sources: BNSF Railway, Canadian National Railway, CSX Transportation, Canadian Pacific Railway, Union Pacific Railroad, Kansas City Southern Railway, Norfolk Southern Corporation.

Barge Transportation

Figure 8
Illinois River barge freight rate[1,2,3]



[1]Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); [2]4-week moving average of the 3-year average.
[3]No rates data from 06/23/20 to 9/29/20 due to the lock closure for rehabilitation and replacement of lock machinery.
Source: USDA, Agricultural Marketing Service.

Table 9
Weekly barge freight rates: Southbound only

		Twin Cities	Mid-Mississippi	Lower Illinois River	St. Louis	Cincinnati	Lower Ohio	Cairo-Memphis
Rate[1]	4/13/2021	425	343	338	230	280	280	221
	4/6/2021	460	372	359	250	308	308	226
$/ton	4/13/2021	26.31	18.25	15.68	9.18	13.13	11.31	6.94
	4/6/2021	28.47	19.79	16.66	9.98	14.45	12.44	7.10
Current week % change from the same week:								
	Last year	12	6	10	12	35	35	15
	3-year avg. [2]	-16	-25	-24	-34	-27	-28	-31
Rate[1]	May	411	341	330	229	272	272	220
	July	405	334	324	226	266	266	218

[1]Rate = percent of 1976 tariff benchmark index (1976 = 100 percent); [2]4-week moving average; ton = 2,000 pounds; "-" not available due to closure.
Source: USDA, Agricultural Marketing Service.

Figure 9
Benchmark tariff rates

Calculating barge rate per ton:
(Rate * 1976 tariff benchmark rate per ton)/100

Select applicable index from market quotes are included in tables on this page. The 1976 benchmark rates per ton are provided in map.

Map Credit: USDA, Agricultural Marketing Service

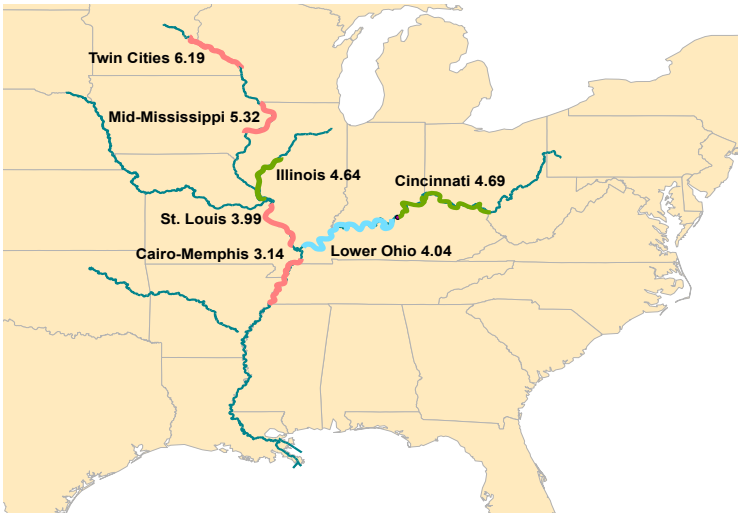
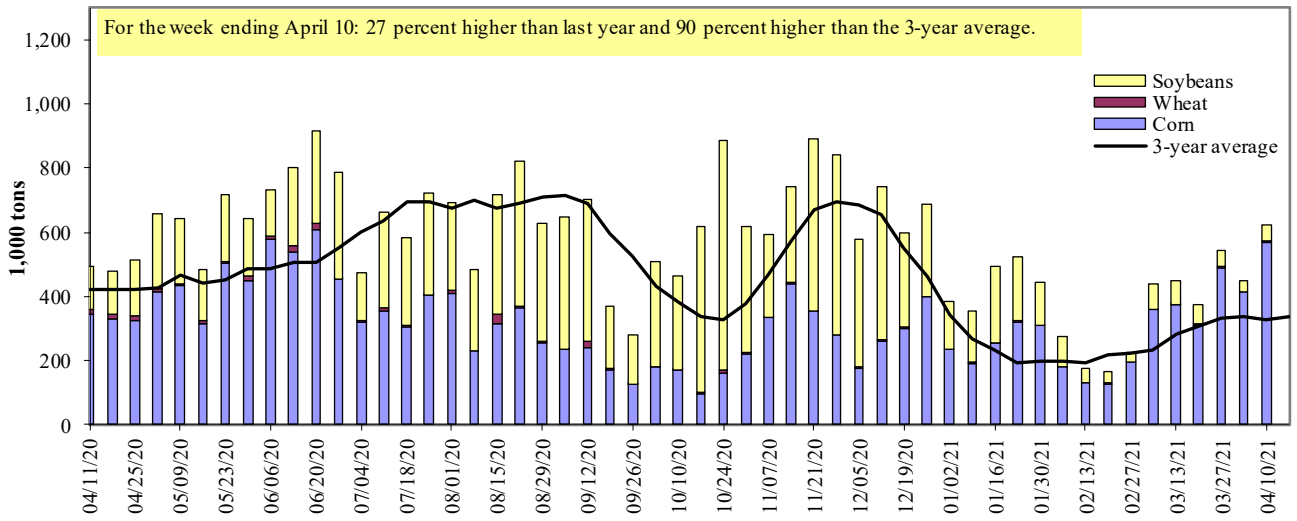


Figure 10

Barge movements on the Mississippi River[1] (Locks 27 - Granite City, IL)



[1] The 3-year average is a 4-week moving average.

Source: U.S. Army Corps of Engineers.

Table 10

Barge grain movements (1,000 tons)

For the week ending 04/10/2021	Corn	Wheat	Soybeans	Other	Total
Mississippi River					
Rock Island, IL (L15)	126	0	25	0	151
Winfield, MO (L25)	346	0	34	3	382
Alton, IL (L26)	564	3	46	6	620
Granite City, IL (L27)	570	3	51	6	631
Illinois River (La Grange)	82	0	3	0	85
Ohio River (Olmsted)	138	5	68	0	211
Arkansas River (L1)	6	31	25	0	62
Weekly total - 2021	713	39	144	6	903
Weekly total - 2020	263	27	132	0	421
2021 YTD[1]	7,570	268	3,064	114	11,016
2020 YTD[1]	3,577	422	2,910	13	6,922
2021 as % of 2020 YTD	212	63	105	851	159
Last 4 weeks as % of 2020[2]	199	94	82	1,497	159
Total 2020	18,942	1,765	19,205	237	40,149

[1] Weekly total, YTD (year-to-date), and calendar year total include MI/27, OH/Olmsted, and AR/1; Other refers to oats, barley, sorghum, and rye. Total may not add exactly due to rounding.

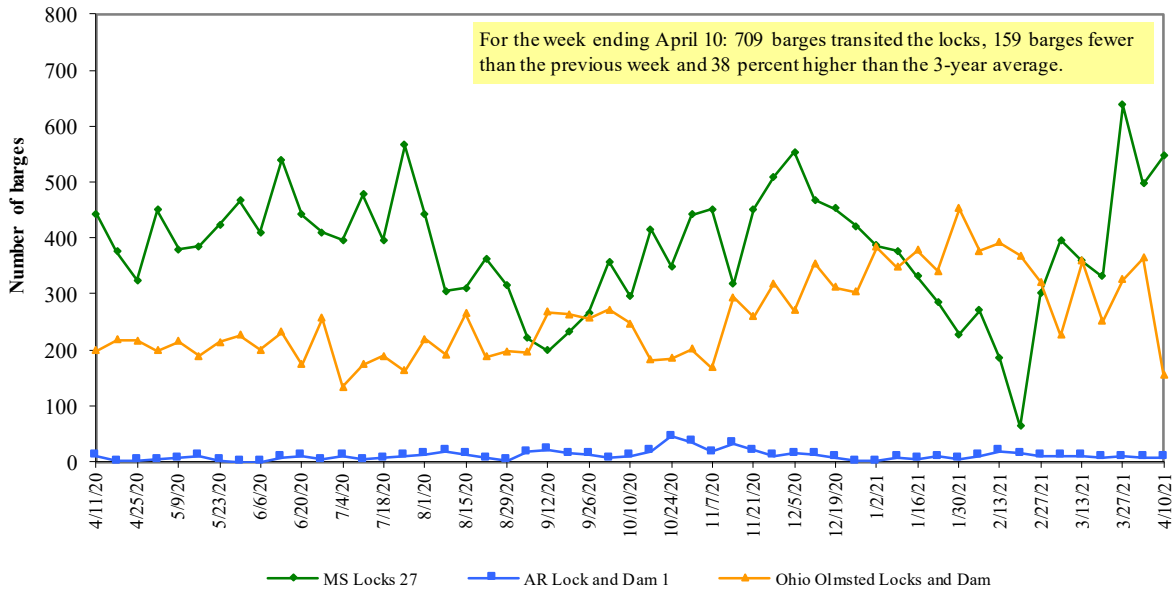
[2] As a percent of same period in 2020.

Note: L (as in "L15") refers to a lock, locks, or locks and dam facility.

Source: U.S. Army Corps of Engineers.

Figure 11

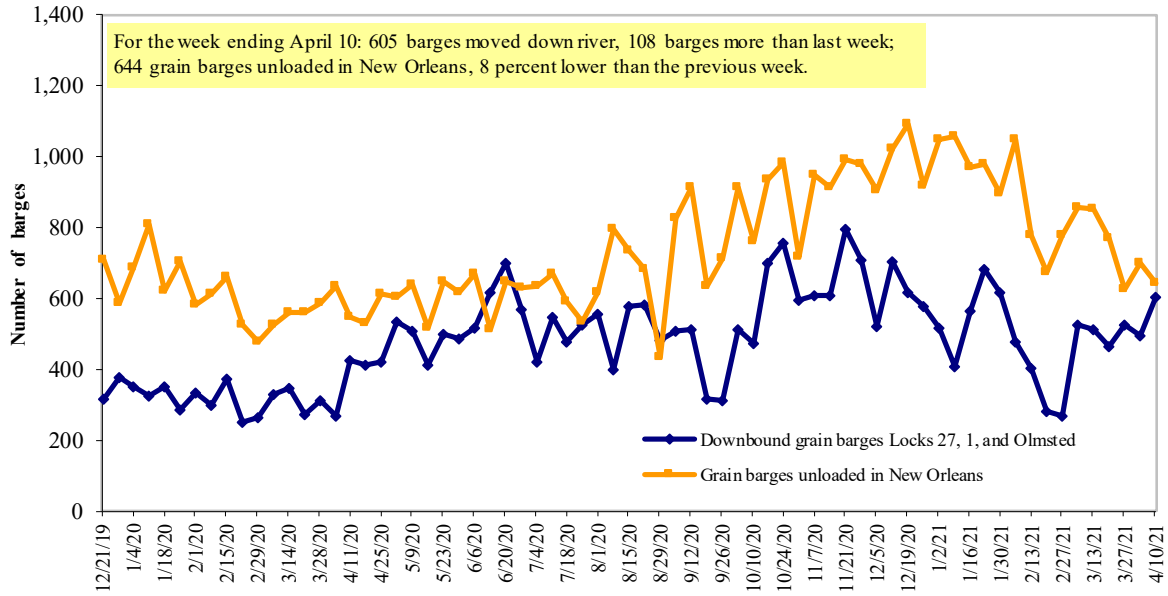
Upbound empty barges transiting Mississippi River Locks 27, Arkansas River Lock and Dam 1, and Ohio River Olmsted Locks and Dam



Source: U.S. Army Corps of Engineers.

Figure 12

Grain barges for export in New Orleans region



Note: Olmsted = Olmsted Locks and Dam.

Source: U.S. Army Corps of Engineers and USDA, Agricultural Marketing Service.

Truck Transportation

The **weekly diesel price** provides a proxy for trends in U.S. truck rates as diesel fuel is a significant expense for truck grain movements.

Table 11

Retail on-highway diesel prices, week ending 4/12/2021 (U.S. $/gallon)

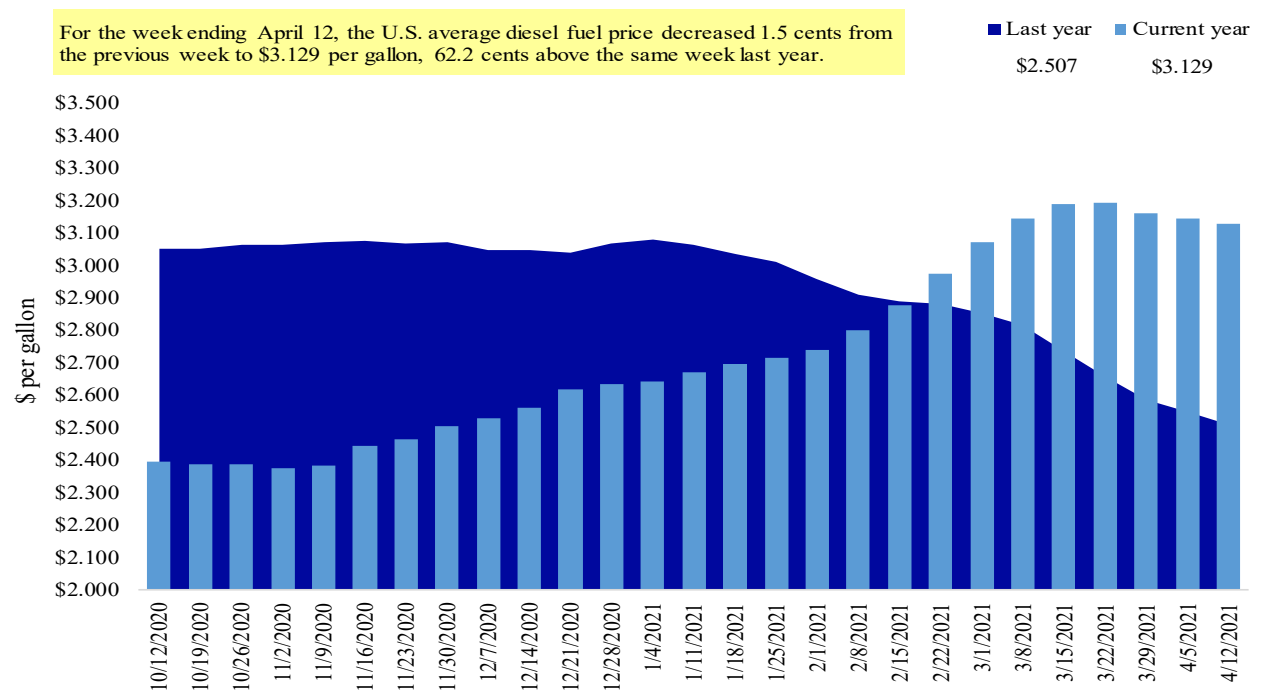
Region	Location	Price	Change from Week ago	Change from Year ago
I	East Coast	3.100	-0.014	0.501
	New England	3.071	-0.005	0.356
	Central Atlantic	3.257	-0.011	0.475
	Lower Atlantic	3.001	-0.017	0.551
II	Midwest	3.061	-0.022	0.708
III	Gulf Coast	2.924	-0.010	0.635
IV	Rocky Mountain	3.256	-0.023	0.759
V	West Coast	3.644	-0.009	0.616
	West Coast less California	3.248	-0.011	0.553
	California	3.975	-0.006	0.673
Total	United States	3.129	-0.015	0.622

[1]Diesel fuel prices include all taxes. Prices represent an average of all types of diesel fuel.

Source: U.S. Department of Energy, Energy Information Administration.

Figure 13

Weekly diesel fuel prices, U.S. average



Source: U.S. Department of Energy, Energy Information Administration, Retail On-Highway Diesel Prices.

Grain Exports

Table 12

U.S. export balances and cumulative exports (1,000 metric tons)

	Wheat						Corn	Soybeans	Total
For the week ending	HRW	SRW	HRS	SWW	DUR	All wheat			
Export balances[1]									
4/1/2021	1,272	301	1,408	1,804	80	4,866	30,512	5,587	40,965
This week year ago	1,703	288	1,567	1,112	216	4,886	14,160	5,263	24,309
Cumulative exports-marketing year[2]									
2020/21 YTD	7,276	1,494	6,141	4,818	592	20,321	35,971	55,162	111,453
2019/20 YTD	7,715	2,071	5,785	3,899	685	20,155	19,597	31,969	71,721
YTD 2020/21 as % of 2019/20	94	72	106	124	86	101	184	173	155
Last 4 wks. as % of same period 2019/20*	81	119	102	176	45	110	222	118	177
Total 2019/20	9,526	2,318	6,960	4,751	922	24,477	42,622	43,994	111,094
Total 2018/19	8,591	3,204	6,776	5,164	479	24,214	48,924	46,189	119,327

[1] Current unshipped (outstanding) export sales to date.

[2] Shipped export sales to date; 2020/21 marketing year now in effect for wheat, corn, and soybeans.

Note: marketing year: wheat = 6/01-5/31, corn and soybeans = 9/01-8/31. YTD = year-to-date; wks. = weeks; HRW= hard red winter; SRW = soft red winter; HRS= hard red spring; SWW= soft white wheat; DUR= durum.

Source: USDA, Foreign Agricultural Service.

Table 13

Top 5 importers[1] of U.S. corn

For the week ending 4/1/2021	Total commitments[2]		% change	Exports[3]
	2020/21 current MY	2019/20 last MY	current MY from last MY	3-yr. avg. 2017-19
		- 1,000 mt -		
Mexico	12,776	11,830	8	14,869
Japan	9,191	7,552	22	11,221
Columbia	3,354	3,103	8	4,830
Korea	2,653	1,741	52	4,011
China	23,284	880	2,546	909
Top 5 importers	**51,258**	**25,105**	**104**	**35,840**
Total U.S. corn export sales	**66,483**	**33,756**	**97**	**49,983**
% of projected exports	98%	75%		
Change from prior week[2]	**757**	**1,849**		
Top 5 importers' share of U.S. corn export sales	77%	74%		72%
USDA forecast April 2021	**68,066**	**45,242**	**50**	
Corn use for ethanol USDA forecast, March 2021	**126,365**	**123,368**	**2**	

[1] Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2019/20; marketing year (MY) = Sep 1 - Aug 31.

[2] Cumulative exports (shipped) + outstanding sales (unshipped), FAS weekly export sales report, or export sales query. Total commitments change (net sales) from prior week could include revisions from previous week's outstanding sales or accumulated sales.

[3] FAS marketing year ranking reports (carryover plus accumulated export); yr. = year; avg. = average.

Note: A red number in parentheses indicates a negative number; mt = metric ton.

Source: USDA, Foreign Agricultural Service.

Table 14

Top 5 importers[1] of U.S. soybeans

For the week ending 4/01/2021	Total commitments[2] 2020/21 current MY	2019/20 last MY	% change current MY from last MY	Exports[3] 3-yr. avg. 2017-19
		- 1,000 mt -		- 1,000 mt -
China	35,832	12,617	184	19,106
Mexico	4,558	4,073	12	4,591
Egypt	2,619	2,333	12	2,980
Indonesia	1,829	1,543	19	2,360
Japan	1,899	2,064	(8)	2,288
Top 5 importers	**46,736**	**22,631**	**107**	**31,324**
Total U.S. soybean export sales	**60,749**	**37,233**	**63**	**49,352**
% of projected exports	98%	81%		
change from prior week[2]	**-92**	**523**		
Top 5 importers' share of U.S. soybean export sales	77%	61%		**63%**
USDA forecast, April 2021	**62,125**	**45,831**	**136**	

[1]Based on USDA, Foreign Agricultural Service (FAS) marketing year ranking reports for 2019/20; marketing year (MY) = Sep 1 - Aug 31.

[2]Cumulative exports (shipped) + outstanding sales (unshipped), FAS weekly export sales report, or export sales query. The total commitments change (net sales) from prior week could include revisions from previous week's outstanding sales and/or accumulated sales.

[3]FAS marketing year ranking reports (carryover plus accumulated export); yr. = year; avg. = average.

Note: A red number in parentheses indicates a negative number; mt = metric ton.

Source: USDA, Foreign Agricultural Service.

Table 15

Top 10 importers[1] of all U.S. wheat

For the week ending 4/1/2021	Total commitments[2] 2020/21 current MY	2019/20 last MY	% change current MY from last MY	Exports[3] 3-yr. avg. 2017-19
		1,000 mt -		- 1,000 mt -
Mexico	3,445	3,628	(5)	3,213
Philippines	3,174	3,210	(1)	2,888
Japan	2,485	2,680	(7)	2,655
Nigeria	1,392	1,538	(9)	1,433
Korea	1,878	1,570	20	1,372
Indonesia	879	997	(12)	1,195
Taiwan	1,138	1,288	(12)	1,175
Thailand	809	854	(5)	727
Italy	588	850	(31)	622
Colombia	373	768	(51)	618
Top 10 importers	**16,161**	**17,383**	(7)	**15,897**
Total U.S. wheat export sales	**25,186**	**25,042**	1	**23,821**
% of projected exports	94%	95%		
change from prior week[2]	**82**	**259**		
Top 10 importers' share of U.S. wheat export sales	64%	69%		67%
USDA forecast, April 2021	**26,839**	**26,294**	2	

[1] Based on USDA, Foreign Agricultural Service(FAS) marketing year ranking reports for 2019/20; Marketing year (MY) = Jun 1 - May 31.

[2] Cumulative exports (shipped) + outstanding sales (unshipped), FAS weekly export sales report, or export sales query. The total commitments change (net sales) from prior week could include revisions from the previous week's outstanding and/or accumulated sales.

[3] FAS marketing year final reports (carryover plus accumulated export); yr. = year; avg. = average.

Note: A red number in parentheses indicates a negative number.

Source: USDA, Foreign Agricultural Service.

Table 16

Grain inspections for export by U.S. port region (1,000 metric tons)

Port regions	For the week ending 04/08/21	Previous week*	Current week as % of previous	2021 YTD*	2020 YTD*	2021 YTD as % of 2020 YTD	Last 4-weeks as % of: Last year	Last 4-weeks as % of: Prior 3-yr. avg.	2020 total*
Pacific Northwest									
Wheat	308	408	76	4,333	4,449	97	119	130	15,966
Corn	441	532	83	5,274	1,883	280	189	131	9,969
Soybeans	20	0	n/a	3,645	2,206	165	14	5	14,028
Total	**769**	**940**	**82**	**13,252**	**8,537**	**155**	**140**	**105**	**39,963**
Mississippi Gulf									
Wheat	68	58	118	547	1,033	53	86	52	3,422
Corn	924	1,325	70	14,173	7,985	177	164	160	28,781
Soybeans	178	162	110	9,048	7,566	120	79	77	38,013
Total	**1,170**	**1,545**	**76**	**23,768**	**16,584**	**143**	**136**	**130**	**70,215**
Texas Gulf									
Wheat	67	92	72	1,009	1,103	92	124	101	4,248
Corn	0	5	0	174	168	104	175	123	723
Soybeans	8	0	n/a	656	7	n/a	n/a	n/a	2,098
Total	**75**	**98**	**76**	**1,840**	**1,277**	**144**	**140**	**112**	**7,068**
Interior									
Wheat	40	111	36	747	698	107	111	197	2,263
Corn	185	260	71	2,488	2,212	112	128	139	8,683
Soybeans	126	163	77	2,049	1,981	103	133	120	7,274
Total	**351**	**534**	**66**	**5,285**	**4,891**	**108**	**127**	**137**	**18,220**
Great Lakes									
Wheat	0	0	n/a	19	1	n/a	n/a	10	891
Corn	0	0	n/a	0	0	n/a	n/a	n/a	111
Soybeans	0	0	n/a	0	0	n/a	n/a	0	1,111
Total	**0**	**0**	**n/a**	**19**	**1**	**n/a**	**n/a**	**3**	**2,113**
Atlantic									
Wheat	0	0	n/a	71	1	n/a	n/a	163	65
Corn	7	0	n/a	7	0	n/a	n/a	298	33
Soybeans	13	80	16	940	311	302	333	155	1,870
Total	**20**	**80**	**25**	**1,019**	**313**	**326**	**406**	**159**	**1,968**
U.S. total from ports*									
Wheat	482	669	72	6,727	7,284	92	117	115	26,854
Corn	1,557	2,122	73	22,117	12,248	181	165	149	48,301
Soybeans	345	405	85	16,338	12,071	135	93	72	64,394
Total	**2,384**	**3,196**	**75**	**45,182**	**31,603**	**143**	**138**	**122**	**139,548**

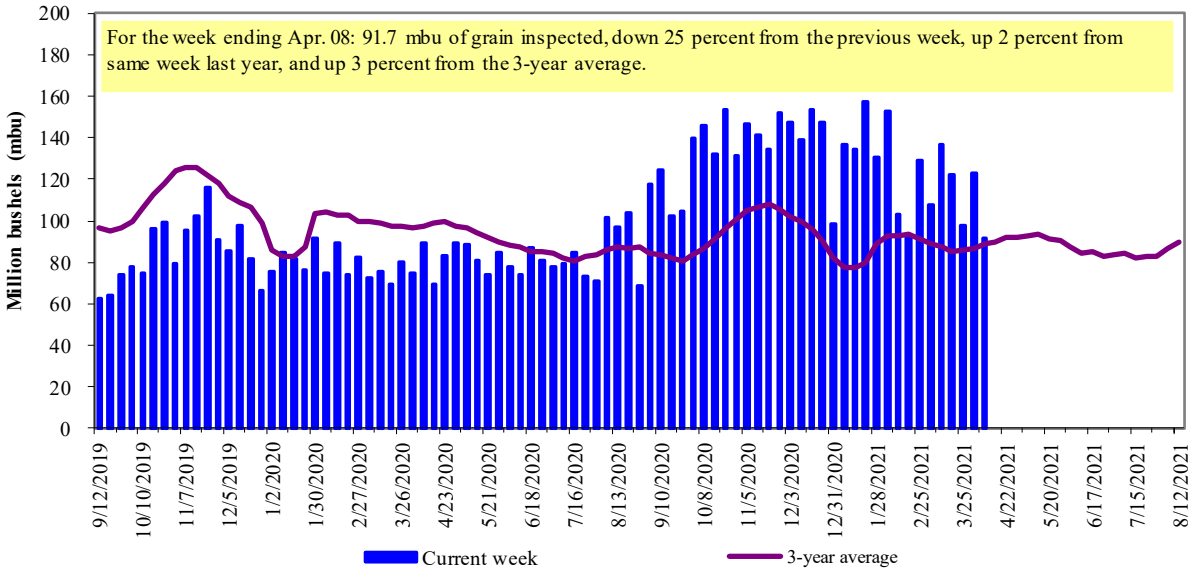
*Data includes revisions from prior weeks; some regional totals may not add exactly due to rounding.

Source: USDA, Federal Grain Inspection Service; YTD= year-to-date; n/a = not applicable or no change.

The United States exports approximately one-quarter of the grain it produces. On average, this includes nearly 45 percent of U.S.-grown wheat, 50 percent of U.S.-grown soybeans, and 20 percent of the U.S.-grown corn. Approximately 55 percent of the U.S. export grain shipments departed through the U.S. Gulf region in 2019.

Figure 14

U.S. grain inspected for export (wheat, corn, and soybeans)

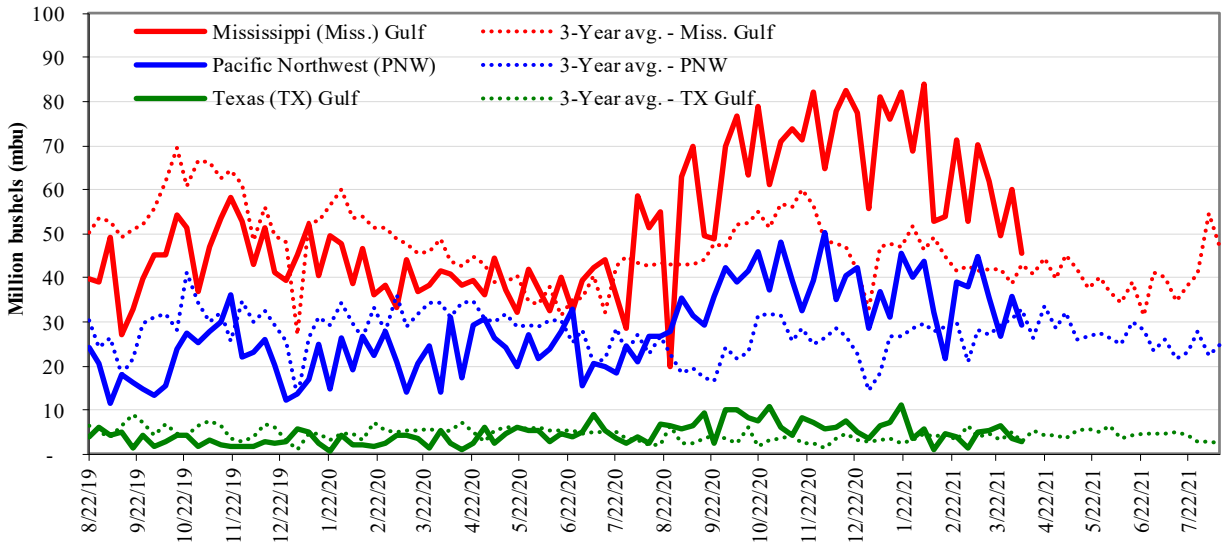


Note: 3-year average consists of 4-week running average.

Source: USDA, Federal Grain Inspection Service.

Figure 15

U.S. Grain inspections: U.S. Gulf and PNW[1] (wheat, corn, and soybeans)



Week ending 04/08/21 inspections (mbu):	
MS Gulf:	45.4
PNW:	29.4
TX Gulf:	2.7

Percent change from:	MS Gulf	TX Gulf	U.S. Gulf	PNW
Last wk:	down 25	down 24	down 25	down 18
Last Year (same wk):	up 12	up 5	up 11	down 5
3-yr avg. (4-wk. mov. Avg):	up 10	down 32	up 6	down 2

Source: USDA, Federal Grain Inspection Service.

Table 17

Weekly port region grain ocean vessel activity (number of vessels)

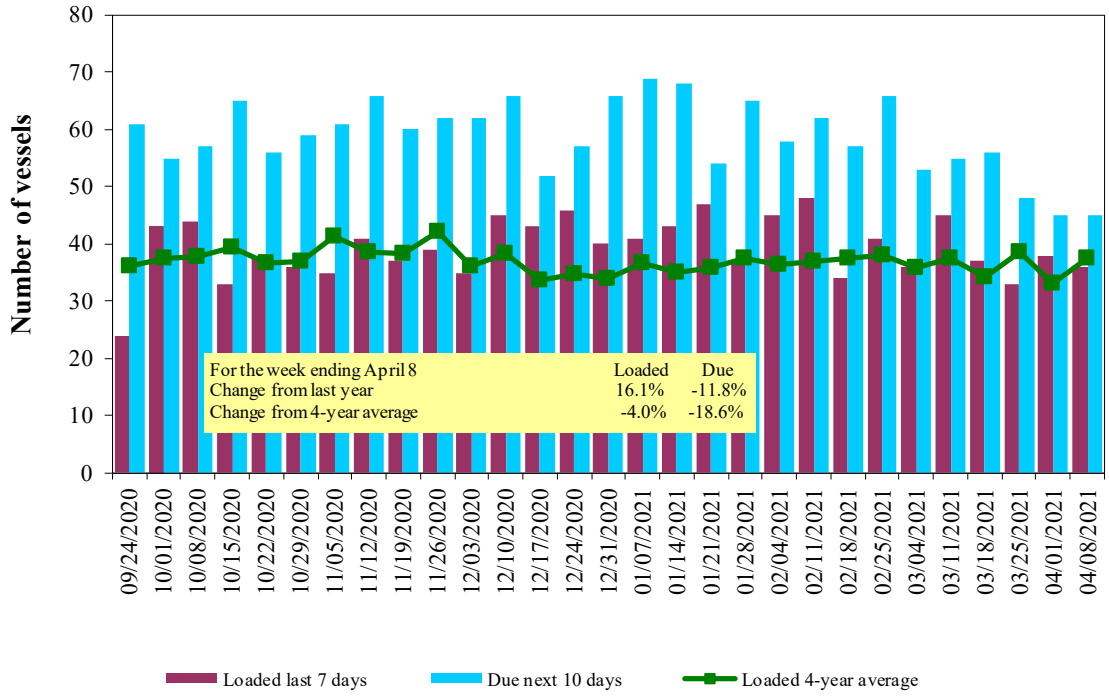
	Gulf			Pacific Northwest
Date	In port	Loaded 7-days	Due next 10-days	In port
4/8/2021	40	36	45	20
4/1/2021	38	38	45	14
2020 range	(22…60)	(23...46)	(34...68)	(7…24)
2020 average	37	33	49	15

Note: n/a = not available due to holiday.

Source: USDA, Agricultural Marketing Service.

Figure 16

U.S. Gulf[1] vessel loading activity

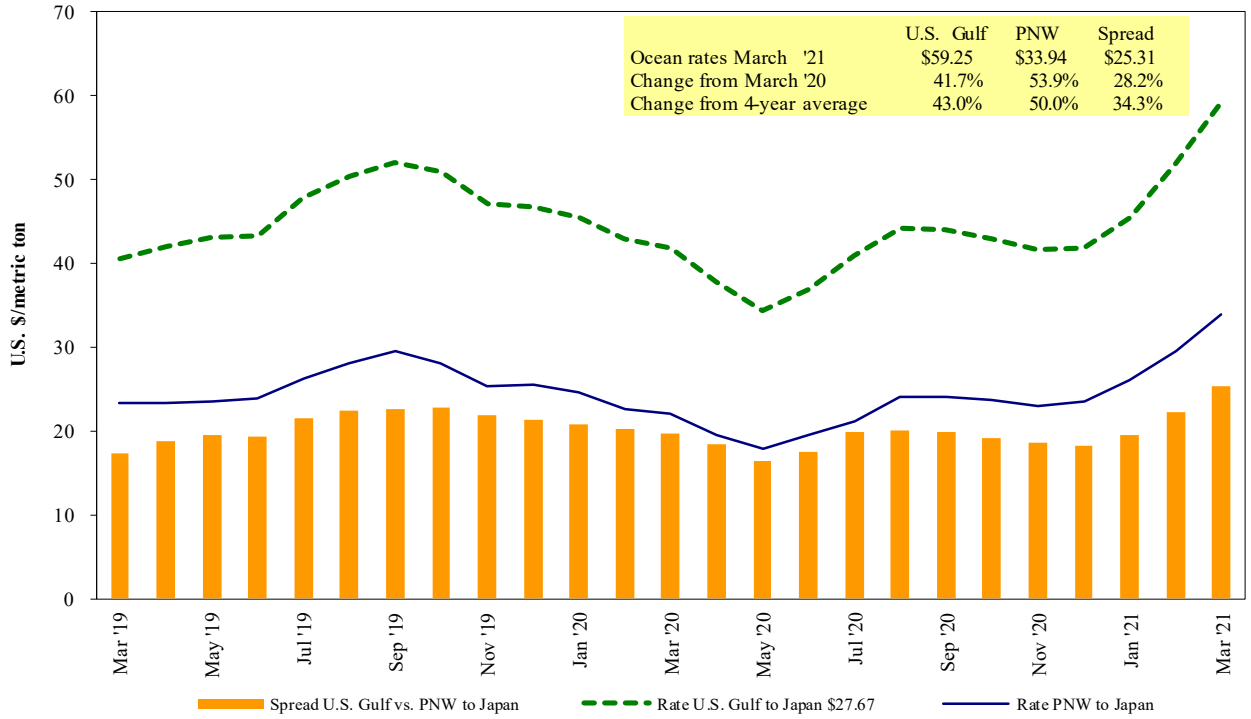


[1]U.S. Gulf includes Mississippi, Texas, and East Gulf.

Source:USDA, Agricultural Marketing Service.

Figure 17

Grain vessel rates, U.S. to Japan



Note: PNW = Pacific Northwest

Source: O'Neil Commodity Consulting

Table 18

Ocean freight rates for selected shipments, week ending 04/10/2021

Export region	Import region	Grain types	Loading date	Volume loads (metric tons)	Freight rate (US$/metric ton)
U.S. Gulf	Japan	Heavy grain	Aug 21/Sep 9	50,000	60.90
U.S. Gulf	Japan	Grain	May 25/Jun 25	50,000	46.85 op 47.85
U.S. Gulf	Japan	Wheat	May 1/15	31,877	58.33
U.S. Gulf	Japan	Wheat	May 1/14	47,405	67.50
U.S. Gulf	Japan	Heavy grain	Apr 15/May 15	50,000	47.00
U.S. Gulf	Japan	Heavy grain	Apr 1/30	48,000	46.75
U.S. Gulf	China	Heavy grain	Apr 14/29	68,000	63.50
U.S. Gulf	South Korea	Heavy grain	Feb 20/28	51,000	51.50
U.S. Gulf	Pt Sudan	Sorghum	Feb 15/25	34,860	143.13*
U.S. Gulf	Vietnam	Corn	Feb 5/15	70,000	47.25
PNW	Japan	Grain	Mar 5/14	28,000	48.10
PNW	Taiwan	Wheat	May 29/Jun 12	45,665	48.00
PNW	Taiwan	Corn	Feb 20/Mar 15	65,000	24.90
Brazil	China	Heavy grain	Mar 21/31	66,000	44.00
Brazil	China	Heavy grain	Mar 21/30	66,000	45.50
River Plate	S. Korea	Corn	May 1/31	68,000	52.60*
Ukraine	China	Corn	Feb 10/17	60,000	36.40 op 38.90

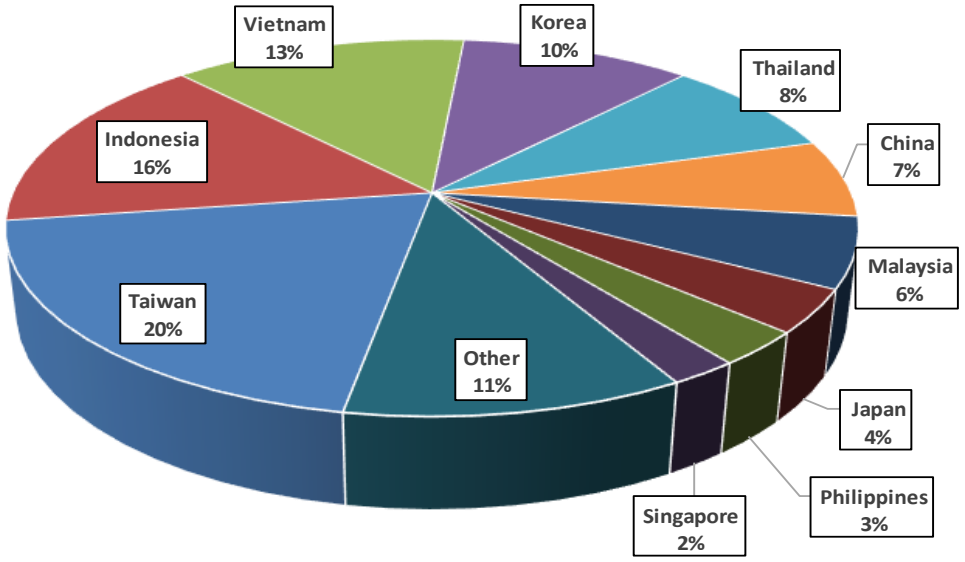
*50 percent of food aid from the United States is required to be shipped on U.S.-flag vessels.

Note: Rates shown are per metric ton (2,204.62 lbs. = 1 metric ton), free on board (F.O.B), except where otherwise indicated; op = option.

Source: Maritime Research, Inc.

In 2019, containers were used to transport 9 percent of total U.S. waterborne grain exports. Approximately 60 percent of U.S. waterborne grain exports in 2019 went to Asia, of which 14 percent were moved in containers. Approximately 94 percent of U.S. waterborne containerized grain exports were destined for Asia.

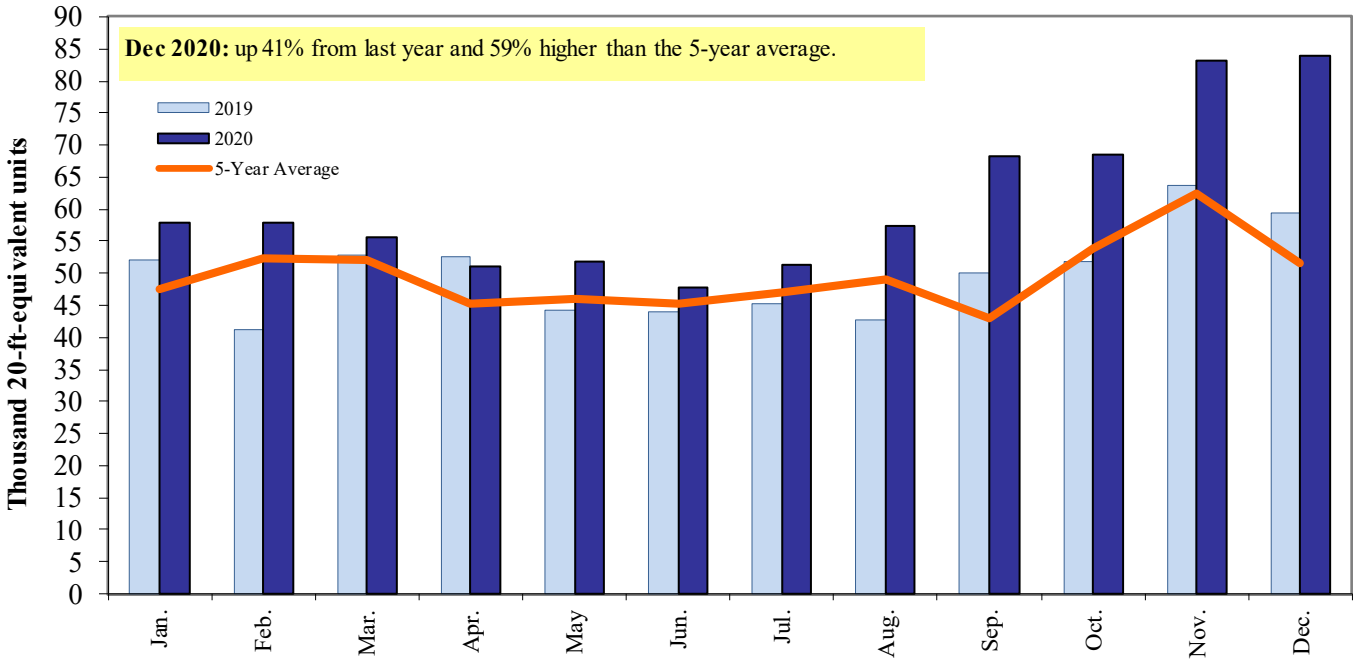
Figure 18
Top 10 destination markets for U.S. containerized grain exports, Jan-Dec 2020



Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 1001, 100190, 1002, 1003 100300, 1004, 100400, 1005, 100590, 1007, 100700, 1102, 110100, 230310, 110220, 110290, 1201, 120100, 230210, 230990, 230330, 120810, and 120190.

Source: USDA, Agricultural Marketing Service, Transportation Services Division analysis of PIERS data.

Figure 19
Monthly shipments of containerized grain to Asia



Note: The following Harmonized Tariff Codes are used to calculate containerized grains movements: 100190, 100200, 100300, 100400, 100590, 100700, 110100, 110220, 110290, 1201, 120100, 120190, 120810, 230210, 230310, 230330, and 230990.

Source: USDA, Agricultural Marketing Service, Transportation Services Division analysis of PIERS data.

Contacts and Links

Coordinators		
Surajudeen (Deen) Olowolayemo	surajudeen.olowolayemo@usda.gov	(202) 720 - 0119
Maria Williams	maria.williams@usda.gov	(202) 690 - 4430
Bernadette Winston	bernadette.winston@usda.gov	(202) 690 - 0487
Matt Chang	matt.chang@usda.gov	(202) 720 - 0299
Grain Transportation Indicators		
Surajudeen (Deen) Olowolayemo	surajudeen.olowolayemo@usda.gov	(202) 720 - 0119
Rail Transportation		
Johnny Hill	johnny.hill@usda.gov	(202) 690 - 3295
Jesse Gastelle	jesse.gastelle@usda.gov	(202) 690 - 1144
Peter Caffarelli	petera.caffarelli@usda.gov	(202) 690 - 3244
Barge Transportation		
April Taylor	april.taylor@usda.gov	(202) 720 - 7880
Bernadette Winston	bernadette.winston@usda.gov	(202) 690 - 0487
Matt Chang	matt.chang@usda.gov	(202) 720 - 0299
Truck Transportation		
April Taylor	april.taylor@usda.gov	(202) 720 - 7880
Kranti Mulik	kranti.mulik@usda.gov	(202) 756 - 2577
Matt Chang	matt.chang@usda.gov	(202) 720 - 0299
Grain Exports		
Johnny Hill	johnny.hill@usda.gov	(202) 690 - 3295
Kranti Mulik	kranti.mulik@usda.gov	(202) 756 - 2577
Ocean Transportation		
Surajudeen (Deen) Olowolayemo (Freight rates and vessels)	surajudeen.olowolayemo@usda.gov	(202) 720 - 0119
April Taylor (Container movements)	april.taylor@usda.gov	(202) 720 - 7880
Editor		
Maria Williams	maria.williams@usda.gov	(202) 690-4430

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